U.S. EPA Environmental Technology Verification Program
Advanced Monitoring Systems (AMS) Center

Air Stakeholder Committee Teleconference
Tuesday, January 31, 2006

Teleconference Meeting Minutes

AGENDA

Welcome, Agenda, and Meeting Objectives	Gretchen Hund, Battelle
Stakeholder Introductions and Insights	Gretchen Hund/Stakeholders
Update on Technology Categories ▪ Dioxin Emission Monitoring Systems (EMSs) ▪ Personal Cascade Impactor Sampler (PCIS) ▪ Mercury Continuous Emission Monitors (CEMs) ▪ Leak Detection	Tom Kelly, Battelle
Hot Topics	Gretchen Hund
Distribution of *The Monitor* Newsletter	Amy Dindal, Battelle
Future Meeting Schedule	Gretchen Hund
Wrap-up and Review of Action Items	Rachel Sell, Battelle
Adjourn	

ATTENDEES

Stakeholder Committee Members:
Ernest Bouffard, Connecticut Department of Environmental Protection
Judy Chow, Desert Research Institute
Rudy Eden, South Coast Air Quality Management District
Phil Galvin, New York State Dept. of Environmental Conservation
Clifford R. Glowacki, TECHNIKON
Jerry Hatfield, USDA National Soil Tilth Laboratory
Tom Logan, EPA/OAQPS
Roy Owens, Owens Corning
Joann Rice, EPA/OAQPS

Donald Stedman, University of Denver

ETV AMS Center Staff:
Amy Dindal, Battelle
Bob Fuerst, EPA/RTP
Gretchen Hund, Battelle
Tom Kelly, Battelle
Rachel Sell, Battelle

Participants:
Barry Feldman, EPA Region 6
Dick Pfeiffer, USDA National Soil Tilth Laboratory

Welcome, Agenda, and Meeting Objectives

Gretchen Hund welcomed the committee stakeholders and introduced a new stakeholder, Joann Rice, who is going to be taking the place of Tim Hanley on the Air Stakeholder Committee.

Ms. Rice is with the U.S. Environmental Protection Agency (EPA), Office of Air Quality Planning and Standards (OAQPS). For almost 20 years, Ms. Rice has worked in the areas of ambient air monitoring, analytical chemistry, and method application research. She is a member of the Ambient Air Monitoring Group of the Emissions Monitoring and Analysis Division, and is currently the Program Manager for the $PM_{2.5}$ Speciation network and the Team Lead for Trace Gas Measurements work to support the overall National Ambient Air Monitoring Strategy. Ms. Rice is also the ambient air monitoring methods Lead and responsible for tracking monitoring program method issues and research, and coordinating efforts to resolve method issues. She also works with state and local monitoring agencies to support standards and other data collection efforts.

Stakeholder Introductions and Insights

Ms. Hund then asked each stakeholder to introduce him or herself and describe his or her role within his or her organization.

Amy Dindal added that she hopes the stakeholder group likes this format of the teleconference; she is hoping that this process will encourage stakeholder feedback on a more continual basis. Ms. Hund said that if the group likes the format, the idea would be to have quarterly teleconferences, as well as in-person meetings every 12 to 18 months.

Update on Technology Categories

Tom Kelly provided an update on technology categories currently in the verification process. He reviewed slides from a PowerPoint presentation distributed to stakeholders before the teleconference. Four air verifications are either in development or nearly completed. He said that if anyone had questions about the slides to follow up with him after the call or to follow up with the point of contact listed on page 2 of the presentation.

Dr. Kelly reviewed the **Dioxin Emission Monitoring Systems (EMSs)** verification currently under way. He reviewed the collaborators who provided co-funding including EPA's Office of Solid Waste, Office of Research and Development, and OAQPS, as well as the Chlorine Chemistry Council. He then described the four technologies that underwent verification, the test design, and some background on the test facility. The Dioxin EMS verification also included a field day at the host site in Research Triangle Park, NC. Dr. Kelly briefly described the results, including a slide that compared one EMS with the reference method and showed very good agreement.

Responding to a question about sampling lengths, Dr. Kelly said the shortest runs were 4 hours and the longest runs were 16 hours (16 hour samples were collected as two 8-hour runs taken over two days because of boiler operation restrictions).

Rudy Eden asked what measurement uncertainty was associated with the dioxin results (total measurement of toxicity equivalents (TEQ) was presented). Don Stedman and Tom Kelly responded that an uncertainty of about 20% would be reasonable. It was suggested to check with Ken Cowen to discuss Mr. Eden's question in greater detail.

Dr. Kelly reviewed slides detailing the upcoming verification of a **Personal Cascade Impactor Sampler (PCIS)** for measuring ambient particulate matter (PM). He said that the Mickey Leland National Urban Air Toxics Research Center (NUATRC) is co-funding the verification test. One technology is undergoing verification.

Dr. Stedman asked why there was an emphasis on metals in ambient PM and not nitrate or other common species. Dr. Kelly noted that Mickey Leland wanted that part of the verification to focus on metals in ambient air.

Dr. Kelly moved to the third technology category, **Hg CEMs Round III**. He reviewed the schedule and reported that two vendors are likely to participate in the June 2006 verification.

Dr. Kelly reviewed the final technology category, **Remote Leak Detection Devices.** He noted that discussions are currently under way within the ETV/AMS Center to perform a data verification of existing American Petroleum Institute (API) lab data. API already funded laboratory testing of detection of petroleum hydrocarbons.

Dr. Kelly asked if any stakeholders would be interested in serving on a technical review committee that would look at the API data. Such a committee is required under the ETV QMP for use of existing data. Don Stedman, Roy Owens, Rudy Eden, and Cliff Glowacki volunteered. An action item was made to get back to these four stakeholders with updates and next steps.

Barry Feldman of EPA Region 6 then introduced himself and described other opportunities (outside of the ETV/AMS Center) being pursued for field evaluation of remote leak detection devices. He noted that in addition to the petroleum industry other industries (i.e., chemical manufacturing) would be interested in this type of technology. He has been in discussion with the American Chemistry Council (ACC). If the ACC were to be able to help fund a test, polar volatile compounds found at chemical plants would be used in testing of these devices. The GasFinder camera has already been purchased by a number of states and EPA is using it as a screening device (since at present it cannot be used in place of the current regulatory method).

Mr. Feldman said the GasFinder can locate leaks on a number of components simultaneously; therefore, it would be important to know the limitations of the technology as well as the detection limits for various chemicals. He is hoping that API and ACC would agree to fund a test at a chemical facility.

Dr. Stedman commented that limitations on these devices exist because detection limits are heavily dependent on their surroundings (e.g., temperature, background, etc.), and can be essentially infinite under worst case conditions. Under certain conditions, it is possible that a release would not be detectable.

Tom Logan said he believes EPA's intention is to propose this method as an alternative leak detection technology in the Summer or Fall of 2006.

Hot Topics

Ms. Hund asked the stakeholders if they were aware of any new opportunities that the ETV/AMS Center should be exploring.

Judy Chow said that a literature review is currently underway on passive monitoring (of SO_2, ammonia, and PM). Dr. Chow may present the work she is doing in this area at a future meeting. She is not sure if that area will grow. Mr. Feldman noted that EPA Region 6 is doing a quite a bit of toxics work with passive monitoring and offered to pass along EPA staff contacts to Dr. Chow. (Post meeting comment: Mr. Feldman forwarded information for Kuenja Chung and Mark Sather. Mark is concerned with ozone formation and Kuenja with toxic monitoring.)

In terms of opportunities, Dr. Chow recommended particle size (including ultrafine/nanoparticle) measurement as a technology category. There is a growing interest in the health effects community for these technologies. Three vendors (TSI, Grimm, MSP) currently exist. She recommended that Dr. Kelly contact her to obtain preliminary comparison test data for these technologies.

Distribution of *The Monitor* Newsletter

Ms. Dindal described the current distribution of *The Monitor* newsletter. After a brief discussion, the stakeholders felt receiving one hardcopy of *The Monitor* each would be sufficient. In addition, a pdf of *The Monitor* would be emailed to stakeholders (who could in turn forward to others) in lieu of additional hardcopies. If stakeholders need additional hard copies they will contact Battelle (or provide additional names to add to *The Monitor* mailing list).

Future Meeting Schedule

Ms. Hund said that in order to get more continual input and feedback from the stakeholders, quarterly stakeholder teleconferences may be helpful. She noted the next teleconference would be planned for in the April/May timeframe. It was agreed by several stakeholders that the conference call format was very efficient. She reiterated that the Air Stakeholder Committee would still have in-person meetings but that the in-person meetings would occur less frequently if we do quarterly conference calls.

Ms. Hund said that teleconference formats may vary; one call might be spent discussing the results of one test, another call may highlight several tests in the planning stages.

Cliff Glowacki suggested looking into web-based conferencing (e.g. WebEX or WebMeeting). Jerry Hatfield agreed that web-based conferencing works well (and he has abandoned video conferencing). It was also noted that video conferencing is still very expensive. For the next call, Battelle will look into the option of web-based conferencing.

Ms. Hund said it was suggested at the last meeting to have the next in-person meeting in the Gulf Coast region (e.g., Alabama). She will check with Jeff Cook who offered this suggestion on ideas for a potential location.

Wrap-up and Review of Action Items

Rachel Sell reviewed the action items brought forth on the call:

1. If anyone has questions about the slides, follow up with Dr. Kelly after the call or follow up with the points of contact listed below:

   Dioxin Emission Monitoring Systems (EMSs)
   Ken Cowen, cowenk@battelle.org, (614) 424-5547

   Personal Cascade Impactor Samplers (PCISs)
   Marielle Brinkman, brinkmmc@battelle.org (614) 424-5277

   Hg CEMs Round III
   Tom Kelly, kellyt@battelle.org, (614) 424-3495

   Remote Leak Detection Devices
   Tom Kelly, kellyt@battelle.org, (614) 424-3495

2. Don Stedman, Roy Owens, Rudy Eden, and Cliff Glowacki volunteered to serve on a technical review committee that would look at existing API data for remote leak detection devices. Keep in touch with these four stakeholders on process and next steps.

3. Mr. Feldman would pass along passive monitoring contacts (at EPA) to Dr. Chow. (Action completed after this teleconference.)

4. Dr. Kelly is to contact Dr. Chow to obtain preliminary comparison test data for particle size measurement technologies.

5. Battelle is to look into the option of web-based conferencing for the next teleconference.

6. Ms. Hund will check with Jeff Cook on ideas for a potential meeting location.

Ms. Hund thanked all of the stakeholders for attending the meeting and contributing so much to ETV. The call adjourned at 3:15 pm.